CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

REQUEST FOR INFORMATION (RFI)

GREEN MOBILITY SHOWCASE PROJECT

1. **Solar Powered Cooling Stations**
2. **Light Emitting Diode (LED) Streetlights**
3. **Advanced Streetlight Poles**
4. **Plug-in Stations for Electric Vehicles**
5. **Light Control and Monitoring Devices**

February 15, 2008

1 BACKGROUND

1.1 In 2005 The City of San José (San Jose) adopted the goal of becoming a Global Sustainable City and meeting the standards of the U.N. Urban Environmental Accords. On October 5, 2007, the City adopted the San José Green Vision which sets forth a strategy to address environmental challenges (EXHIBIT A). The primary focus of this strategy encompasses three major elements: Clean Technology, Sustainability, and Green Mobility. This Request for Information addresses components of all three of the elements.

1.2 The City's Green Vision establishes a goal of reducing per-capita energy consumption by one half in the next 15 years, and convert to 100 percent renewable electrical power. San José's commitment sends a strong message to other public agencies, the private sector and the general public that San José is serious about doing all it can to drastically reduce greenhouse gas emissions.

1.3 The relatively high number of sunny days in San José makes it a location well-suited for the development and testing of solar energy applications. The City aspires to be a national solar showcase with cutting-edge demonstration projects, residential and commercial bulk purchasing arrangements, and solar-powered public buildings and street infrastructure.

1.4 The City's Green Mobility goal focuses on the safe and efficient transportation of people and goods with the intent of reducing carbon emissions. San José will lead by example by replacing its City fleet with alternative fuel vehicles, providing public plug-in stations and access to alternative fuels. The City will also encourage more pedestrian and bicycle travel by improving and expanding its trail, sidewalk and bikeway systems.

1.5 The entire Green Vision may be found at in Exhibit A and at http://www.sanjoseca.gov/transportation/SupportFiles/greenvision/SanJoseGreenVision.pdf

2 PURPOSE

2.1 The purpose of this Request for Information (RFI) is to assist the City of San José in learning more about available technologies such as Light Emitting Diode (LED) streetlights and solar-powered infrastructure. Through this RFI, the City is requesting information about the available technologies, evaluate the application of these technologies relative to national, state and local building codes, secure preliminary initial capital cost estimates for budgeting purposes, and determining the overall cost effectiveness and feasibility of incorporating these technologies in public rights-of-way.

2.2 The information collected through this RFI may be used to develop specifications for a competitive solicitation that may be conducted at a later date.

2.3 After evaluation of the RFI responses, the City may invite companies to participate in further discussions. In addition, firms may be invited to install their product(s) as part of a pilot or demonstration project. The potential scope of the project is described below.

2.4 PILOT PROJECT

The City is interested in showcasing the innovative technologies described in responses to this RFI. In particular, the City would like to construct on the sidewalk one Cooling Station with solar technologies integrated within. Moreover, the City would replace existing street lighting (two streetlight poles) with new advanced poles that would allow installation of four LED lights (two per pole), to direct light onto the front and rear of the sidewalk, and integration with two plug-in stations on the poles for electric vehicles. Furthermore, the City would like to create a smart, easily manageable system integrated with monitoring and metering devices as described in section 3.1.5.

3 REQUESTED INFORMATION

3.1 BACKGROUND

To advance its ability to deliver safe and sustainable transportation solutions, the City is interested in innovative technologies in the areas of smart LED streetlights, advanced streetlight poles, solar panels, plug-in stations for electric vehicles, light control, and monitoring devices. Note that all of the technologies described below may be presented as individual solutions allowing integration with other systems, or they may be ready-to-use, fully integrated systems.

3.1.1 Solar-Powered Cooling Stations

Covered, open-air, low maintenance, aesthetic canopies over a public sidewalk that collect the sun's power to offset energy needs of adjacent roadway lighting systems as well as any required lighting within the canopy. The Cooling Station would provide a shaded walk area, but also double as a bicycle, electric scooter, parking area, rest area, bus stop, sidewalk café, or other public facility. The Cooling Station should contain metering and communications devices such that the City and/or utility company could determine the amount of electricity produced, consumed or distributed to the electrical grid.

3.1.2 Light Emitting Diode (LED) Streetlights

Smart streetlights to take the place of existing cobra head streetlights. By time of day, or day of week, the light could be controlled from a remote location for the purpose of dimming, on-off, color change, or other functions. The ideal light would not be controlled through a photo-cell or time clock, but through solid-state, programmable circuitry with built-in daylight/sunset memory for San José, California. The light should be designed to minimize light pollution and, by time of night, produce a light that would lessen impacts to Lick Observatory located in Santa Clara County.

3.1.3 Advanced Streetlight Poles

Poles which provide more sustainability, functionality and communications options than today's poles. The pole and its mast-arm could collect the sun's power, and could distribute power back into the electrical grid or into a smart streetlight. Because streetlights compete for vertical and horizontal space with street trees, the ideal pole could be modular where it could contain varying light styles from 15 feet above the sidewalk to 30 feet. As tree canopies grow the ideal pole could be lowered to optimize lighting conditions and minimize sky glow. The pole should allow multiple electrical or communication lines and provide sufficient protection between such lines.

3.1.4 Plug-in Stations for Electric Vehicles

At approximately three feet above the base of the streetlight pole, a customized electrical outlet would be provided for the sole use of charging electric vehicles. The plug should contain

sufficient intelligence to recognize the individual vehicle, meter the use of electricity consumed, calculate a fee and complete a non-cash transaction, such as applying a fee to a credit card to make payment to the public agency and/or to the utility company. Once a vehicle receives the needed electrical charge, the outlet would discontinue charging. When not in use, the electric outlet could not be activated for any other use than for an electric vehicle charge.

3.1.5 Light Control and Monitoring Devices

The City seeks a reliable, low cost method to communicate to streetlight circuits from a remote location, for the purposes of managing light output, monitoring and metering electrical consumption.

3.2 RESPONSE INFORMATION

3.2.1 Who May Respond

Responses from any individual or company with practical knowledge of the requested technologies are welcome.

3.2.2 Cover Letter

Cover letters should include a brief description and background on your company, key principals and their credentials, and all contact information including contact name, address, phone number and e-mail address.

3.2.3 Capabilities

Provide a brief summary of your firm's capabilities in addressing any or all of the technologies summarized in Section 3.1 of this RFI. Your response should include a concise but thorough description of existing products and technologies, as well any development and product roadmap information that you are willing to disclose at this time.

3.2.4 Client list

Include a list of clients where your solutions have been implemented.

3.2.5 Budgetary cost

A general discussion of the potential initial capital costs associated with your recommended solution and the life cycle cost savings, and a high level explanation of how you are able to achieve these savings. This discussion should distinguish between the initial capital cost of the product(s) and the cost of installation. Further, the discussion relative to life cycle costs should be sufficiently comprehensive to satisfy the City that all of the factors associated with this costing analysis have been considered and estimated. Include any case studies as applicable.

3.2.6 Please indicate your firm's interest/willingness to participate in a pilot program as described in Section 2.4.

3.2.7 Please respond to the Questionnaire, Exhibit B.

3.2.8 The City is not limiting or restricting responses. However, a concise summary is preferred over volumes of marketing literature.

4 CONTACT INFORMATION

Please submit questions and responses via fax, email, regular mail, or courier to:

Rebekah Rodriguez
Administrative Assistant to the Director of Transportation
Phone: (408)535-3830
Fax: (408)292-6092
Email: Rebekah.rodriguez@sanjoseca.gov

Companies responding to this RFI shall designate a single contact within that company for receipt of all subsequent information regarding this RFI and the forthcoming processes. The name of this contact will be made available to all City of San José staff.

5 RFI TIMELINE

Date	Event
February 15	RFP Released
February 22	Deadline for Questions
February 27	City Responds to Questions
February 28	City's Response to Written Questions
March 5	Responses Due

6 GENERAL INFORAMTION

6.1 Confidential or proprietary information should not be included in your response.

6.2 The City of San José will not reimburse for any costs you may be incur in responding to this RFI.

EXHIBIT A

The City of San Jose Green Vision is available at the following link:

http://www.sanjoseca.gov/transportation/SupportFiles/greenvision/SanJoseGreenVision.pdf

Green Vision Goals

Within 15 years, the City of San José, in tandem with its residents and businesses will:

- Create 25,000 Clean Tech jobs as the World Center of Clean Tech Innovation
- Reduce per capita energy use by 50 percent
- Receive 100 percent of our electrical power from clean renewable sources
- Build or retrofit 50 million square feet of green buildings
- Divert 100 percent of the waste from our landfill and convert waste to energy
- Recycle or beneficially reuse 100 percent of our wastewater (100 million gallons per day)
- Adopt a General Plan with measurable standards for sustainable development
- Ensure that 100 percent of public fleet vehicles run on alternative fuels
- Plant 100,000 new trees and replace 100 percent of our streetlights with smart, zero-emission lighting
- Create 100 miles of interconnected trails

EXHIBIT B

1. Where are your company's technologies currently being utilized?
2. How long have your company's products been on the market?
3. Are your company's products/technology flexible such that they can adapt to changing technology? If so, please explain how?
4. Can the technology offered be integrated with the other relevant technologies requested in this RFI?
5. Are sample performance specifications available? If so, please include with your response.
6. What expertise is needed to do the installation of your technology? Is a third party installation possible?
7. Can the technology products you provide be serviced by the City maintenance crews?
8. Would you be interested in presenting your product(s) to the City staff? What would be needed in order to facilitate such a presentation?
9. Would your company be willing to enter into an agreement with the City to participate in a pilot project to demonstrate your technology? What would be the cost (if any) to the City of such a demonstration?
10. Would you be interested in a potential pilot site tour?